

NEW AUSTRALIAN FISHES IN THE QUEENSLAND  
MUSEUM. PART II.

BY CHARLES W. DE VIS, M.A.

CHÆTODON AURORA.

D. 12/30 (about.) A. 3/20. Lat. 30.

The profile of the head is very concave, the snout produced and pointed, pre operculum slightly crenulated at the angle, dorsal and anal fins rounded posteriorly. The ocular band covers the posterior three-fourths of the orbit, and meets its fellow of the opposite side on the chest. Two broad but very faint bands on the body, the first from the fourth to sixth dorsal spines to the ventral, the second, forming on the anterior part of the soft dorsal a bright black triangle, goes to the anal. A black bar across the base of the caudal. Behind the black triangle the soft dorsal is bright buff, its posterior third brown. Anal, caudal peduncle and caudal yellow, the fins with a narrow intra-marginal black line, tip of caudal transparent.

Length,  $3\frac{1}{2}$  inches. Locality, Queensland Coast.

Closely related to *C. Ulietensis*, C & V.

CHÆTODON EPHIPPIMUM. C. & V.

A half-grown specimen, in all probability from Cardwell.

CHÆTODON NIGRIPES.

D. 14/23. A. 3/18. Lat. 35.

The insertion of the dorsal is elevated, the profile of the head and nape descending from it in a nearly straight line. The snout

produced, conical. The dorsal and anal fins pointed at the posterior end. The ocular band is narrower than the orbit, but widens on its lower edge. Body and fins uniform brownish grey, slate colour posteriorly. Anal with a broad black edge commencing in a point at the tip and dilating over the greater part of the spines.

Length, 4 inches. Locality, Queensland.

CHÆTODON GERMANUS.

D. 13/24. A. 3/18. Lat. 42.

Nape rather gibbous in front of the dorsal. Snout short, equal in length to the diameter of the orbit. Dorsal and anal rounded. No ocular band. An indistinct dark band across the forehead, and a black patch on the gibbosity of the nape. Body with about eight oblique bands descending forwards. One parallel to them on the base of the anal. Soft dorsal with a narrow black intra-marginal line. Caudal with a narrow black crescent in the middle and broad transparent tip. Anal with a within black edged buff intra-marginal concentric band, and brown margin.

Length,  $2\frac{3}{4}$  inches. Locality, Queensland.

CHÆTODON TOWNLEYI.

D. 6/28. A. 3/20. Lat. 54.

Snout a little produced, longer than the diameter of the orbit. Ventral reaching the anal. Dorsal spines gradually increasing in length to the sixth.

Six brown to black vertical bands, the sixth narrow across the tail near the base. The first more or less distinctly double, from the nape through the eye, meeting its fellow of the opposite side on the chest. Second over the edge of the opercle. Third, fourth and fifth from the top of the dorsal to the bottom of the anal. The dorsal part of the fourth assuming more or less the form of a blotch, the fifth interrupted in the middle of its hinder edge by a large white edged black spot on the caudal peduncle.

Length, 1 to 3 inches. Locality, Moreton Bay.

A single example received its name from its collector, Captain Townley, of St. Helena, other specimens have been received subsequently.

SCATOPHAGUS QUADRANUS.

The fish representing on the Queensland Coast, the Indian *Scatophagus argus* Lin. appears to be incapable of identification with that species. It has no recumbent spine in either its adult or adolescent states. The spots on the body do not extend beyond the base of the soft dorsal. When they are present on the caudal they are limited to its lateral edges, and they scarcely pass on to the base of the anal. The fourth dorsal spine is  $3\frac{1}{2}$  instead of  $2\frac{1}{2}$  in the height of the body even in the full grown fish in which the trunk is relatively elongate. It may be added that no Australian specimen of *S. argus* is mentioned by Dr. Gunther. On these grounds, I venture to draw attention to our well-known fish under the specific name given above. The absence of the procumbent spine renders it strictly speaking a *Chaetodon*, but in its general characters it is a *Scatophagus*, and I therefore, refer it to that genus. Its characters are

D. 11/15-16. A. 4/13-14. L. tr., about 80.

Interorbit half of the length of the head. Pre-orbital with lower posterior angle minutely serrated. Fourth dorsal spine  $3\frac{1}{2}$  in the height of the adult body.

Colour, dark brown, chest, abdomen and caudal lighter. On the body black spots becoming smaller on the lower part, not extending to the nape nor forepart of the abdomen, nor on the fins, except the lateral edges of the caudal. Webs of vertical fins conspicuously darker than the rays.

Length to 13 inches. Locality, Queensland Coasts.

Still commoner on our coasts than the preceding species is the representative of *Scatophagus multifasciatus* of Richardson. Its identification with that species is however, open to the same cardinal objection—in it also the pro-cumbent spine is entirely and invariably wanting. Moreover, were it possible to suppose that

the absence of this generic character could have been overlooked by the describer of *multifasciatus*, the identify of our fish would still remain extremely questionable. Its fourth dorsal spine is the longest, and is 3 or nearly so in the height of the body against  $2\frac{1}{2}$  in the *multifasciatus*. Its form and markings too are not sufficiently in accord with those of the subject of the figure given in the Zoology of the Erebus and Terror, to allow us to refer it to Dr. Richardson's species. Regarding it therefore as an undescribed species, I propose for it the name

SCATOPHAGUS ÆTATE-VARIANS.

D. 12/16. A. 4/15.

Height of the body 2 to  $2\frac{1}{5}$ , and length of the head 4 in the length of the body, s c. Interorbit,  $2\frac{1}{2}$  in the length of the head.

Fourth dorsal spine the longest,  $2\frac{2}{3}$  to 3 in the height of the body. Caudal fin  $1\frac{1}{6}$  in the same. Length of the median rays of the caudal much greater than the depth of the caudal peduncle.

Colour, silvery white with markings varying with age. The young fish has on the upper part of the body five vertical bars, and on the post-abominal region large spots irregularly disposed. When about half mature it has two bars across the muzzle, the lower one continued around the lower lip. Between the orbits a curved band within a larger one, which curves backward from orbit to orbit, and is continued backwards on the nape to the first vertical bar on the body. The body has five bars terminating on the flanks and breaking up into dark spots on the abdomen, the anterior bar descending to the upper angle of the operculum, and sometimes faintly over the operculum. There is also a band from the end of the soft dorsal half-way to the anal, and another half across the root of the caudal fin. Between the vertical dorsal bands short alternate ones make their appearance. The dorsal spines are silvery, the webs of the vertical fins dark. In the adult state the short alternate bars are lengthened to an equality with the others, either in continuity or as elongated spots. The irregular abdominal spots are arranged in two or three continuous longitudinal bands,

and the markings on the head, except the interorbital band, become obsolete. The lips, a supraciliary stripe, and the caudal are dark and the web of the spinous dorsal black. The body is less deep, the vertex more concave and the muzzle rather longer.

Length to 12 inches. Locality, Queensland Coast.

The retention of the two preceding species is justified by the similar inconstancy in the *absence* (to the eye) of the pro-cumbent spine in the allied genus *Holacanthus*. It is a character which in both genera should be stated with a reservation. The nakedness of the first dorsal in *Scatophagus* is its distinctive feature.

Two other species of *Scatophagus* are in the Queensland collection, one of them near Bougainvilli. C. & V., but both being quite young, I forbear to notice them further.

#### HOLACANTHUS SPHYNX.

D. 14/16-17. A. 3/17. Lat. 45.

A procumbent dorsal spine. The pre-opercular spine is  $\frac{1}{2}$  of the length of the head, and has a small one anterior to it. The vertical fins are rounded, not produced. The pre-orbital pre-opercle and lower limb of opercle denticulated. Profile equally convex above and below.

Colour, uniform light golden brown.

Length,  $3\frac{1}{2}$  inches. Locality, Queensland Coast.

#### HOLACANTHUS BICOLOR. Bl.

The procumbent dorsal spine exposed in the preceding species is, in bicolor, just covered by the skin.

Locality, Queensland Coast.

#### HOLACANTHUS SEMI-CIRCULARIS. C. & V.

In the Queensland specimen the alternating blue lines are barely distinguishable.

## UPENEOIDES RUBRINIGER.

D. 8/8. A. 7. Lat. 27. Tr. 2/5.

The height rather less than a third of the length, s.c. The length of the head, one-third of the same. Orbit and interorbit, each  $4\frac{1}{3}$ , snout  $2\frac{1}{5}$ , in the length of the head. Second dorsal spine,  $1\frac{2}{3}$  in the height of the body.

Physiognomy labroid. The profile of the head parabolic. Colour, dusky reddish brown. The scales narrowly edged, darker. Head and fins, except the pectoral, black. Pectoral, darker than the body.

## MULLOIDES ARMATUS.

D 7  $\frac{1}{8}$ . A. 1/6. Lat. 40. Tr.  $2\frac{1}{2}$ /7.

The height of the body is  $5\frac{1}{2}$ , and the length of the head,  $4\frac{1}{4}$  in the total length. Orbit  $3\frac{1}{2}$ , snout more than  $2\frac{1}{2}$ , interorbit 4, dorsal and pectoral  $1\frac{1}{4}$ , in the length of the head. Scapula and operculum, each with a short point. The barbels hardly reach the angle of the pre-operculum. Profile of the snout, convex. Pre-orbital high, exceeding post-orbital part of the head. Tubules of anterior scales of lateral line numerous, becoming fewer and simpler posteriorly. Teeth of lower jaw minute in a broad band, of upper, small but distinct.

Colour, uniform; fins, immaculate.

Length, 6 inches. Locality, Queensland.

## LETHRINUS ORNATUS.

D. 10/8. A. 3/8. Lat. 47. Tr. 5/17.

The height of the body is  $3\frac{1}{3}$ , and the length of the head, 4 nearly, in the total length. Snout 2, orbit  $4\frac{3}{4}$ , interorbit  $3\frac{1}{2}$ , in the length of the head. The fifth (longest) dorsal spine is  $3\frac{1}{4}$  in the height of the body, and  $2\frac{1}{2}$  in the length of the head. The profile is tumid on the nape, rather concave between it and the snout. Anterior teeth short, not canines; posterior teeth molars. Caudal strongly emarginate. The maxillary does not reach the anterior nostril, and is not covered by the pre-orbital. A bony protuberance in front of the orbit.

Colour, (dry) mottled grey : some of the scales white, some dark centred. Top of the head chesnut brown ; soft dorsal with traces of pale spots. Pectoral, pale straw colour ; axil, black, with the black extending on the upper edge of the base of the pectoral.

Colour, (recent) top of the head nearly greenish blue. Upper half of the rays of the soft dorsal, green ; the webs reticulated with brown, outer rays of caudal red, passing into golden yellow near the tip of the upper lobe ; tip white, median rays tipped with black ; on the body about twenty longitudinal golden streaks. Many scales of the middle of the trunk with pearly streaks. General tint bluish on the upper, yellowish on the lower parts. Sides of the head yellowish, with two blue streaks from the orbit to the rictus ; rictus within vermilion. Base of pectoral rays yellow.

Length, 15 inches. Locality, Wide Bay.

CENTROPOGON NITENS.

D. 14/10. A. 3/5. Lat. ? Tr.  $\frac{2}{43}$ .

The height of the body is 4, and the length of the head to the tip of the opercular spine  $3\frac{2}{3}$ , in the total length. Orbit and interorbit 5, snout 4, in the length of the head. The third dorsal spine reaches from the tip of the snout to the hinder edge of the orbit. The dorsal notched, the last spine being two-thirds of the second ray which is longer than the second spine. The pectoral is narrow and does not reach to the end of the ventral. The ventral anal and dorsal webs deeply scalloped. Scales very distinct, each with three striæ converging from the base towards the margin. Armature of head normal. Colour seems to have been yellow on the body, the striæ of the scales giving them a bright glistening appearance. Middle of spinous dorsal blackish, top of soft dorsal and hinder half of caudal black ; ventral marbled with black.

Length,  $8\frac{1}{2}$  inches. Locality, Queensland Coast.



## TETRAROGÉ BELLONA.

D. 15/8. A. 3/4.

Height of body and length of head, each  $3\frac{1}{4}$  in the total length. Orbit and snout, each  $3\frac{1}{2}$ , interorbit 6, in the length of the head. Third to sixth dorsal spines (the longest)  $2\frac{1}{2}$  in the same. Scales minute, but distinct. The dorsal rises on the nape, has no notch and is widely separated from the caudal. Third anal spine the longest. Pre-orbital with two strong denticulations, interorbit with two strong ridges diverging backward; nape, with a ridge-like spine, on each side.

Colour, light yellowish brown, blotched with darker brown, which extends as a patch on the spinous dorsal and forms a cross-band near the root of the caudal.

Length, 1.4 inch. Locality, Queensland Coast.

## TETRAROGÉ HAMILTONI.

D. 16/9. A. 3/5. Lat. 50.

The height of the body and the length of the head are each  $3\frac{1}{2}$  in the total length. Orbit  $3\frac{1}{4}$ , interorbit 6, snout 4, in the length of the head. Third dorsal spine,  $\frac{2}{3}$  of the height of the body. Scales small and harsh, well defined, not extending on the anterior part of the dorsum. The third dorsal spine the longest, the 4th and 8th equal. The spinous dorsal higher than the soft or the anal; second anal spine longer and stronger than the third. Spine terminating the pre-opercular ridge long; the pre-orbital spine longer; no opercular ridge. Interorbital furrow shallow, traversed by two ridges diverging backwards.

Colour, pinky brown, deepening to a rufous brown broad band descending over the anterior part of the soft dorsal to and over the corresponding part of the anal; behind it on the soft dorsal a narrow fainter band. Spinous dorsal with two groups of brown specks. Caudal with two bands, one across the root, the other defining the posterior third. Muzzle and top of head dark brown. A dark band across the cheeks.



Length,  $3\frac{1}{2}$  inches. Collected by Mr. J. Hamilton, Dunwich, Moreton Bay; received also from Mr. Steele, Tweed River.

In the young four cross bands are faintly indicated on the body, distinctly on the dorsal fin.

#### APLOACTIS LICHEN.

D. 3 + 11/10. A. 10. P. 13. V. 1/3.

The height of the body is 3, the length of the head  $2\frac{3}{4}$  in the length, s.c. The length of the face is  $1\frac{3}{4}$  in that of the head. The first dorsal low, deeply notched. The second dorsal as high as the length of the caudal, and extending to the base of the latter. Head large, profile elevated over the operculum. Front straight, rising at a high angle. No teeth on the vomer nor palatines.

Colour, liver brown with dark blotches irregularly disposed, and forming cross-bands posteriorly. A large pinky-white lichen-like spot on the upper corner of the pectoral and similar pink spots on the opercle and orbit.

Length, 6 inches. Locality, Moreton Bay. Collected by Mr. G. Watkins, Dunwich.

On comparison with the figure of *A. Milesii*, Rich. the distinctive characters of this fish, its nuchal hump, long face, and high soft dorsal are sufficiently obvious.

#### TEUTHIS GIBBOSUS.

A procumbent pre-dorsal spine.

The height of the body is  $2\frac{3}{5}$ , the length of the head  $5\frac{1}{3}$ , in the total length. Orbit and snout, each 3 in the length of the head. Lower profile regularly convex, upper increasing in convexity under the spinous portion of the dorsal. Last dorsal spine  $\frac{2}{3}$  of the first ray.

Colour, rufous grey, redder on the back, nearly white on the abdomen, throat and cheeks. Dark brown spots sparsely scattered

on the head and lower part of body. A few obscure pale spots on the lower part of the back.

Length,  $6\frac{1}{2}$  inches. Locality, Queensland Court.

TEUTHIS TEUTHOPSIS.

A procumbent pre-dorsal spine.

The height of the body is nearly 2, the length of head  $2\frac{2}{3}$  in the length, s.c. Orbit  $3\frac{1}{2}$ , snout and interorbit, each  $2\frac{1}{2}$  in the length of the head. The upper lobe of the caudal the longer.

Lower part of the head, chest, and fore-part of the trunk with rather large pale dark-edged spots most conspicuous on the opercle where they are disposed in descending series.

Length, 8 inches. Locality, Queensland Coast.

The presence of a feature unique in the genus might be held sufficient to warrant the formation of a new generic term for the fish. This, however, I leave to others.

TEUTHIS FLAVA.

A procumbent predorsal spine.

The height of the body is  $2\frac{3}{5}$ , the length of the head,  $4\frac{3}{4}$  in the total length. Orbit 3, snout  $2\frac{2}{3}$ , in the length of the head. Profile regularly and equally convex above and below. Caudal, strongly emarginate. Head, small.

Colour, uniform light purplish brown. The middle part of the body yellowish, especially near the head. Two dark bars from the orbit to the rictus. Pectorals yellow.